

## ABSTRACT OF THE DISCLOSURE

An embodiment of the present invention takes the form of a multielectrode for recording a bioelectrical potential difference at a detection site. The multielectrode includes a carrier that has an active electrode surface and  
5 multiple reference electrode surfaces. The multielectrode includes a plurality of recording pairs for recording the bioelectrical potential difference at the detection site multiple times in response to a single stimulus. The active electrode surface is a part of more than one of the recording pairs. The recording pairs can be coupled to processing apparatus for an improved signal-to-noise ratio of the recorded  
10 bioelectrical-potential-difference recordings.